IN THE CLAIMS:

Claims 1-5 (Cancelled).

6. (Currently amended) An ionic compound having a cation of the onium type with at least one heteroatom comprising N, O, S or P bearing the positive charge and the anion including, in whole or in part, at least one imide ion of the type $(FX^1O)N^-(OX^2F)$ wherein X^1 and X^2 are the same or different and comprise SO or PF, wherein the compound comprises at least an anion selected from Cl^-; Br^-; I^-; NO_3^-; $M(R^{10})_4^-$; $A(R^{10})_6^-$; $R^{11}YO_2^-$; $R^{11}YONZ^{1-}$; $R^{11}YOCZ^2Z^{3-}$; 4,5-dicyano-1,2,3 triazole; 3,5-bis(R_F)-1,2,4-triazole; tricyanomethane; pentacyanocyclopentadiene; pentakis~~(trifluormethyl)~~(trifluoromethyl)cyclopentadiene; and barbituric acid, and;

-M is B, Al Ga or Bi;

-A is P, As and Sb;

-R^{10} is a halogen;

-R^{11} represents H, F, alkyl, alkenyl, aryl, arylalkyl, alkylaryl, arylalkenyl, alkenylaryl, dialkylamino, alkoxy or thioalkoxy, each having from 1 to 18 carbon atoms and being unsubstituted or substituted with one or more oxa, thia, or aza substituents, and wherein one or more hydrogen atoms are optionally replaced with halogen in a ratio of 0 to 100%, and eventually being part of polymeric chain;

- Y represents C, SO, S=NCN, $S=C(CN)_2$, PR^{11}, $P(NCN)R^{11}$, $P(C(CN)_2)R^{11}$, and when Y is $P(NCN)R^{11}$ or $P(C(CN)_2)R^{11}$, then $R^{11}YO_2$, $R^{11}YONZ^1$, and $R^{11}YOCZ^2Z^3$ become $R^{11}YO$, $R^{11}YNZ^1$, and $R^{11}YCZ^2Z^3$, respectively, an alkyl, alkenyl, aryl, arylalkyl, alkylaryl, arylalkenyl, alkenylaryl having from 1 to 18 carbon atoms and optionally substituted by one or more oxa, thia or aza; a dialkylamino group $N(R^{11})_2$;

-Z^1, Z^2, and Z^3 represent independently R^{11}, $R^{11}YO$ or CN, this group being optionally part of a polymeric chain.

Claims 7-23 (Cancelled).

26. (Previously Presented) A method of using electrolytic composition, comprising the step of:

carrying out chemical or electrochemical reactions involving soluble species in a medium comprising said electrolytic composition,

wherein said reactions are selected from Diels-Alder, Friedel-Craft, mixed aldolization, condensation, polymerization, nucleophilic substitution, and electrophilic substitution reactions,

and wherein said electrolytic composition comprises at least one ionic compound of low melting point having a cation of the onium type with at least one heteroatom selected from N, O, S or P bearing the positive charge and the anion including, in whole or in part, at least one imide ion of the type $(FX^1O)N^-(OX^2F)$, wherein X^1 and X^2 are the same or different and comprise SO or PF.

27. (Previously Presented) The method according to claim 26, wherein the composition is used in combination with at least another component comprising a metallic salt, a polar polymer and/or an aprotic co-solvent.

28. (Previously Presented) The method according to claim 26, wherein the composition comprises a chiral onium cation allowing enantionselective reactions.

Claims 29 -33 (Cancelled).

34. (Previously Presented) A medium used to perform an organic chemistry reaction involving soluble species present in said medium, comprising:

at least one ionic compound of low melting point comprising a cation of the onium type having at least one heteroatom selected from N, O, S or P carrying a positive charge; and

an anion including, in whole or in part, at least one imide ion of the type $(FX^1O)N^-(OX^2F)$, wherein X^1 and X^2 are the same or different and comprise SO or PF,

and wherein such medium is optionally used in combination with at least one other component selected from the group consisting of a metallic salt, a polar polymer, and an aprotic cosolvent.

and wherein the medium comprises at least one chiral onium cation allowing enantioselective reactions.

35. (Previously Presented) A medium used to perform an organic chemistry reaction involving soluble species present in said medium, comprising:

at least one ionic compound of low melting point comprising a cation of the onium type having at least one heteroatom selected from N, O, S or P carrying a positive charge; and

an anion including, in whole or in part, at least one imide ion of the type $(FX^1O)N^-(OX^2F)$, wherein X^1 and X^2 are the same or different and comprise SO or PF,

and wherein such medium is optionally used in combination with at least one other component selected from the group consisting of a metallic salt, a polar polymer, and an aprotic cosolvent,

and wherein the medium comprises at least one catalytic species.

36. (Previously presented) The medium according to claim 35, wherein the catalytic species is at least one of the group consisting of an alkaline metal salt, a transition metal salt, a rare earth metal salt, and an organometallic salt.

37. (Previously presented) The medium according to claim 36, wherein the catalytic species is coordinated with one or more ligands.

38. (Previously presented) The medium according to claim 36, wherein the organometallic salt is a metallocene.

39. (Previously presented) The medium according to claim 37, wherein the one or more ligands are selected from the group consisting of bipyridines, porphyrines, phosphines, and arsines.

Claims 40-43 (Cancelled).

44. (Previously Presented) The electrochemical device according to claim 45, wherein said device is used as an electrochemical generator, said generator comprising one negative and one positive electrode, wherein

said one negative electrode comprises a compound selected from the group consisting of lithium or an alloy thereof, a carbon insertion compound such as petroleum coke or graphite, a low insertion potential oxide (< 2 Volts vs Li^+/Li^0) such as titanium spinel $Li_{4+x+3y}Ti_{5-x}O_{12}(0 \leq x,$

y≤1), a double nitride of a transition metal and lithium such as $Li_{3-x}Co_zN$ (0≤z≤1), a compound having a structure of the antifluorite type such as Li_3FeN_2 or Li_7MnN_4, and mixtures thereof; and

said one positive electrode comprises a compound selected from the group consisting of VO_x (2≤x≤2.5), mixed oxides of lithium and vanadium such as LiV_3O_8; a double oxide of cobalt and lithium that is optionally partially substituted by at least one cation M and has a general formula $Li_{1-\alpha}Co_{1-x-y}Ni_xAl_y$ (0≤x+y≤1; 0≤α≤1), wherein M=Li, Mg, Al, Cr, Ni, Co, Cu, Ni, Fe, a double phosphate of the olivine or Nasicon structure such as $Li_{1-\alpha}Fe_{1-x}Mn_xPO_4$, $Li_{1-x+2\alpha}Fe_2P_{1-x}Si_xO_4$(0≤x, α ≤1), a rhodizonic acid salt, a polydisulfide derived from the oxidation of dimercaptoethane-2,5-dimercapto-1,3,4-thiadiazole-2,5-dimercapto-1,3,4-oxadiazole-1,2-dimercaptocyclobutene-3,4-dione; and mixtures thereof.

45. (Currently amended) An electrochemical device having at least two electrodes and one electrolyte, said electrolyte comprising at least one ionic compound of low melting point, comprising:

a cation of the onium type with at least one heteroatom selected from N, O, S or P carrying a positive charge; and

an anion [A] including, in whole or in part, at least one imide ion of the type $(FX^1O)N^-(OX^2F)$, wherein X^1 and X^2 are the same or different and comprise SO or PF,

and wherein the electrolyte comprises at least one anion [B] selected from the group consisting of Cl^-; Br^-; I^-; NO_3^-; $M(R^{10})_4^-$ $A(R^{10})_6^-$; $R^{11}YO_2^-$; $[R^{11}YONZ^1]^-$; $[R^{11}YOCZ^2Z^3]^-$; $(R^{11})_2PO_2^-$; $(R^{11})_2P(NCN)O^-$; $(R^{11})_2P(C(CN)_2)O^-$; $[(R^{11})_2PONZ^1]^-$; $[(R^{11})_2P(NCN)NZ^1]^-$; $[(R^{11})_2P(C(CN)_2)NZ^1]^-$; 4,5-dicyano-1,2,3-triazole; 3,5-bis(Rf)-1,2,4-triazole; tricyanomethane; pentacyanocyclopentadiene; pentakis~~(trifluormethyl)~~(trifluoromethyl)cyclopentadiene; barbituric acid; and Meldrum acid derivatives and their substitution products, wherein

M is B, Al, Ga or Bi;

A is P, As and Sb;

R^{10} is a halogen;

R^{11} represents independently H, F, alkyl, alkenyl, aryl, arylalkyl, alkylaryl, arylalkenyl, alkenylaryl, dialkylamino, alkoxy or thioalkoxy, each having from 1 to 18 carbon atoms and being unsubstituted or substituted with one or more oxa, thia, or aza substituents, and wherein one or more hydrogen atoms are optionally replaced with halogen in a ratio of 0 to 100%, and eventually being part of polymeric chain;

Y represents C, SO, S=NCN, S=C(CN)2, an alkyl, alkenyl, aryl, arylalkyl, alkylaryl, arylalkenyl, alkenylaryl having from 1 to 18 carbon atoms and optionally substituted by one or more oxa, thia, or aza, or a dialkylamino group $N(R^{10})_2$; and

Z^1 to Z^3 represent independently R^{11}, $R^{11}YO$, $(R^{11})_2PO$, $(R^{11})_2P(NCN)$, $(R^{11})_2P(C(CN)_2)$ or CN, wherein this group is optionally part of a polymeric chain.

46. (Previously Presented The electrochemical device according to claim 45, wherein the electrolyte comprises at least one salt of anion B with a cation selected from the group consisting of a proton, a cation of an alkaline metal, a cation of an alkaline-earth metal, a cation of a transition metal, and a cation of a rare earth metal.

47. (Previously Presented The electrochemical generator according to claim 46, wherein at least one salt is a lithium salt.

48. (Previously Presented) The electrochemical device according to claim 45, wherein said device is used as an electrical energy storage system of the supercapacitor type.

49. (Previously Presented) The electrical energy storage system according to claim 48, wherein at least one electrode comprises carbon having a high specific surface area greater than 50 m^2/gr.

50. (Previously Presented) The electrical energy storage system according to claim 48, wherein at least one electrode comprises a conjugated polymer.

51. (Previously Presented) The electrical energy storage system according to claim 50, wherein both electrodes comprise a conjugated polymer having three degrees of oxidation.

52. (Previously Presented) The electrical energy storage system according to claim 51, wherein the conjugated polymer is a phenyl-3-thiophene derivative.

Claims 53-57 (Cancelled).

58. (Previously Presented) An electrochemical device having at least two electrodes and an electrolyte, said electrolyte comprising at least one ionic compound of low melting point comprising:

a cation of the onium type with at least one heteroatom selected from N, O, S or P carrying a positive charge; and

an anion including, in whole or in part, at least one imide ion of the type $(FX^1O)N^-(OX^2F)$, wherein X^1 and X^2 are the same or different and comprise SO or PF,

and wherein the electrolyte is impregnated in a porous membrane.

59. (Previously Presented) The electrochemical device according to claim 58, wherein the electrolyte is used in combination with at least another component comprising a metallic salt, a polar polymer and/or an aprotic co-solvent.

60. (Previously Presented) An electrochemical device as in claim 45 wherein the electrolyte is impregnated in a porous membrane optionally in combination with at least another component comprising a metallic salt, a polar polymer and/or an aprotic co-solvent.

61. (Previously Presented) The method according to claim 27, wherein the composition comprises a chiral onium cation allowing enantioselective reactions.